Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-52. (canceled)

53. (new) A method for measuring blood oxygen saturation comprising:

emitting light from at least one light source in a disposable sensor;

detecting light, at a detector in said disposable sensor, from said light source subsequent to being scattered by tissue;

reading the value of an encoder associated with said sensor;

providing calibrations for two types of patients;

selecting between said calibrations to choose a particular calibration using said value of said encoder in said selecting;

using said particular calibration for calculating oxygen saturation.

54. (new) The method of claim 53 wherein said two types of patients include adults and neonates.

55. (new) The method of claim 53 wherein said selecting steps utilize only a single encoder, said encoder being a resistor.

56. (new) The method of claim 53 wherein said encoder is a resistor in said sensor.

57. (new) The method of claim 56 wherein different resistor values are assigned to select different calibrations, said different calibrations corresponding to adult or neonate patients.

58. (new) A method for measuring oxygen saturation comprising:

emitting light from a disposable pulse oximeter sensor;

detecting light from the light source, with a detector in said disposable pulse oximeter sensor, after scattering by tissue;

providing an encoding element;

providing an electrical indication of whether said sensor is an adult or neonate sensor; and

providing calibrations corresponding to a wavelength of said light, for use in calculating oxygen saturation in a patient.

59. (new) The method of claim 58 wherein said encoding element is a resistor, and multiple resistor values are assigned to select different calibrations.

60. (new) A method for measuring blood oxygen saturation comprising:

emitting light from at least one light source;

detecting light, at a detector, from said light source subsequent to being scattered by tissue, the light including an infrared light spectrum, said infrared spectrum having a range useful for measuring oxygen saturation in a patient with high saturation, the detected light also including a red light spectrum, said red light spectrum having a mean wavelength between 700 and 790 nanometers; and

limiting light signals received at the detector from the light source to no more than three spectra.

61. (new) The method of claim 60 further comprising:

providing a red light spectrum having a mean wavelength less than 700 nanometers.

62. (new) The method of claim 60 further comprising:

emitting light in said infrared light spectrum between 805 and 940 nm.

63. (new) A method for measuring oxygen saturation comprising:

emitting light from at least one light source;

detecting light with at least one light detector after scattering by tissue;

limiting light signals received at the detector from the light source to no more than three spectra, a first spectrum including 735 nanometers at an intensity of at least 50% of the intensity of any other wavelengths in said first spectrum.

64. (new) The method of claim 63 wherein a second spectrum has a mean wavelength of from 805 to 940 nm used, in conjunction with said first spectrum, for measuring oxygen saturation in a patient.

65. (new) The method of claim 63 in which a third spectrum has a mean wavelength near 660 nm.

66. (new) A method for measuring oxygen saturation comprising:

emitting light from at least one light source;

detecting light from the light source with a detector after scattering by tissue;

limiting light signals received at the detector to only first and second spectra, a first spectrum having a mean wavelength in the infrared range of from 805 to 940 nm used conventionally for measuring oxygen saturation in a patient with high blood saturation, and a second spectrum having a mean wavelength of from 700 to 790 nm used, in conjunction with said first spectrum, for measuring oxygen saturation in a patient.

67. (new) The method of claim 66 wherein said method is used for fetal sensing.

68. (new) The method of claim 66 wherein said second spectrum is used for calculating oxygen saturation for saturations below 80%.

69. (new) The method of claim 66 wherein said second spectrum is used for calculating oxygen saturation for saturations below 65%.